

**IN THE SPECIFICATION:**

Please replace page 11, lines 7-9 with the following:

The basic congestion control algorithms of TCP [1,13] [1], slow start, congestion avoidance, fast retransmit are used in the protocol. k-SACK uses a modified fast recovery algorithm.

Please replace page 12, lines 7-14 with the following:

Figure 2 shows the system operation. When no losses are detected, the source is in slow start (SS) / congestion avoidance (CA) phase (2.1). Whenever an acknowledgement packet (2.2) is not received (2.2), the source checks for a timeout condition (2.3). If a timeout (2.3) is detected the system reverts to SS/CA phase (2.1). If however, no timeout (2.3) is detected the system calculates the lookahead-loss (2.4) and then checks for packet loss (2.5). Whenever an acknowledgement packet (2.2) is received, the system calculates the lookahead-loss (2.4) and then checks for packet loss (2.5). If no packet loss (2.5) is detected the source remains in the SS/CA phase (2.1). If a packet loss (2.5) is detected the source enters the 'k-sack' fast recovery phase (2.6) and computes the lookahead loss (2.7).

Please replace page 12, lines 15-23 with the following:

Whenever the lookahead loss (2.7) is found to be greater than '0' but less than 'k' the system moves to the 'halt growth' phase (2.8). Once in the 'halt-growth' phase the source checks for acknowledgement (2.9). If no acknowledgement (2.9) is received, the system checks for a timeout condition (2.10). If a timeout (2.10) is detected, the system reverts to SS/CA phase (2.1).

Once an acknowledgement (2.9) is received, the system the system computes the lookahead loss (2.11). If the lookahead loss is '0', the fast recovery (2.12) is complete (2.12) and the source reenters the SS/CA phase (2.1). If the fast recovery (2.12) is not complete, the system else it once again compares the lookahead loss (2.7) with 'k' (2.7).

Please replace page 13, lines 1-9 with the following:

When the lookahead loss (2.7) is found to be greater than 'k', the system enters the 'k-recovery' phase (2.13). Once in 'k-recovery' (2.13), the system checks for acknowledgement (2.14). If no acknowledgement (2.14) is received, the system checks for a timeout condition (2.15). If a timeout (2.15) is detected, the system reverts to SS/CA phase (2.1). If no timeout (2.15) is detected, the system reverts to check for acknowledgement (2.14). Once an acknowledgement (2.14) is received, the system the system computes the lookahead loss (2.16). If the lookahead loss (2.16) is '0', the fast recovery (2.17) is complete (2.17) and the source reenters the SS/CA phase (2.1). If the fast recovery (2.17) is not complete, the system else it once again compares the lookahead loss (2.7) with 'k' (2.7).

Please replace page 13, lines 13-18 with the following:

The system initially starts in the '(O)' state and continues in [[tat]] that state until the occurrence of a packet loss. If the number of lost packets is < 'k', the system transitions to the 'H' state and while doing so freezes the loss window 'lwnd'. If on the other hand, the number of lost packets is  $\geq$  'k' the system transitions to the 'K' state and while doing so sets the loss window 'lwnd' to 'lwnd/2' and the slow start threshold 'ssthresh' to the same values.

Please replace page 16, line 15 with the following:

(9) ns-2: The network simulator version-2 ~~[14]~~.

Please delete page 18, line 8.